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December 16, 1996

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**VIA HAND DELIVERY**

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FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF SECRETARY

Re: Amendment of the Commission's  
Rules to Establish Part 27, the  
Wireless Communications Service ("WCS")  
GN Docket No. 96-228

Dear Mr. Caton:

On behalf of the Fixed Point-to-Point Communications and the Private Radio Sections of the Telecommunications Industry Association ("TIA"), we are filing an original and fourteen (14) copies of their Comments in the above-referenced proceeding.

If there are any questions, please communicate with the undersigned.

Respectfully submitted,

FLETCHER, HEALD & HILDRETH, P.L.C.



Eric Fishman

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Enclosures

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BEFORE THE  
FEDERAL COMMUNICATIONS COMMISSION  
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*Federal Communications Commission  
Office of Secretary*

IN THE MATTER OF )  
 )  
AMENDMENT OF THE COMMISSION'S RULES ) GN DOCKET NO. 96-228  
TO ESTABLISH PART 27, THE WIRELESS )  
COMMUNICATIONS SERVICE ("WCS") )

**REPLY COMMENTS OF THE  
TELECOMMUNICATIONS INDUSTRY ASSOCIATION  
FIXED POINT-TO-POINT COMMUNICATIONS  
AND PRIVATE RADIO SECTIONS**

THE FIXED POINT-TO-POINT  
COMMUNICATIONS SECTION,  
NETWORK EQUIPMENT DIVISION  
AND THE PRIVATE RADIO SECTION OF  
THE MOBILE AND PERSONAL  
COMMUNICATIONS DIVISION  
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DECEMBER 16, 1996

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## **EXECUTIVE SUMMARY**

In a Notice of Proposed Rule Making ("NPRM"), the Commission has proposed to establish a new Wireless Communications Service ("WCS") in the 2305-2320 and 2345-2360 MHz bands (collectively, the "2.3 GHz band"), and to auction licenses on such frequencies for the provision of "any fixed, mobile, radiolocation services, or satellite Digital Audio Radio Services ('satellite DARS')." By the instant Reply Comments, the Fixed Point-to-Point Communications Section, Network Equipment Division and the Private Radio Section of the Mobile and Personal Communications Division of the Telecommunications Industry Association ("TIA") reiterate their joint opposition to the Commission's proposal.

For the reasons set forth herein, TIA respectfully submits that the Commission's proposal exceeds the agency's statutory authority and fails to allocate radio spectrum in the public interest, as the Communications Act requires. As conceived, the Commission's proposal is also unworkable, and would have a serious adverse impact on frequency coordination, service implementation, and rational equipment deployment. TIA urges the Commission to abandon its proposal as currently framed and to adopt a frequency allocation plan supported by other Commenters in this proceeding, which designates use on the 2.3 GHz band for vital wireless high speed broadband data services, including Internet access, with a set-aside, exempt from competitive bidding, for public safety applications.

**BEFORE THE  
FEDERAL COMMUNICATIONS COMMISSION  
WASHINGTON, D.C. 20554**

In the Matter of	)	
	)	
Amendment of the Commission's Rules	)	GN Docket No. 96-228
to Establish Part 27, the Wireless	)	
Communications Service ("WCS")	)	

**REPLY COMMENTS OF THE  
TELECOMMUNICATIONS INDUSTRY ASSOCIATION  
FIXED POINT-TO-POINT COMMUNICATIONS  
AND PRIVATE RADIO SECTIONS**

Pursuant to the Commission's Notice of Proposed Rule Making ("NPRM") in the above-captioned proceeding,<sup>1</sup> the Fixed Point-to-Point Communications Section, Network Equipment Division, and the Private Radio Section of the Mobile and Personal Communications Division of the Telecommunications Industry Association ("TIA")<sup>2</sup> hereby submit the following joint reply comments. For the reasons set forth below, TIA reiterates its opposition to the Commission's proposal to establish a new Wireless Communications Service ("WCS") in the 2305-2320 and 2345-2360 MHz bands (collectively, the "2.3 GHz

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<sup>1</sup> Amendment of the Commission's Rules to Establish Part 27, the Wireless Communications Service ("WCS"), FCC 96-441, released November 12, 1996.

<sup>2</sup> TIA is the principal industry association representing fixed point-to-point microwave and mobile radio equipment manufacturers. TIA members serve all segments of the U.S. telecommunications industry, including telephone carriers, utilities, railroads, state and local governments, and cellular carriers licensed by the Commission to use private and common carrier bands for provision of important and essential telecommunications services. The members of TIA are interested in this proceeding because of its potential impact on the deployment of terrestrial fixed and mobile services, and the equipment demands which such services will generate.

band") without basing its frequency allocation on a public interest determination as Title III of the Communications Act of 1934, 47 U.S.C. §§ 301 et seq., requires. A multitude of comments filed in this proceeding -- submitted by a broad spectrum of service providers, equipment manufacturers and industry trade associations -- share this view, and warn the Commission of the detrimental effects on licensees and the public which are likely to ensue should the Commission pursue its tentative plan to allocate frequencies for indeterminate uses through competitive bidding. Together with other Commenters, TIA again urges the Commission to abandon its proposal as currently framed. In its place, TIA joins other Commenters urging the Commission to allocate use on the 2.3 GHz band for vital wireless high speed broadband data services, including Internet access, with a set-aside, exempt from competitive bidding, for public safety applications.

**I. The Commission Has a Statutory Obligation to Allocate Frequencies in the Public Interest**

In their respective filings, a handful of Commenters have asserted that Congressional mandate embodied in the Omnibus Consolidated Appropriations Act of 1997,<sup>3</sup> ties the Commission's hands and effectively requires the Commission to delegate its frequency allocation authority to the auction process.<sup>4</sup> As TIA and other Commenters

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<sup>3</sup> P.L. 104-208, 110 Stat. 3009 (1996) (the "1997 Appropriations Act").

<sup>4</sup> See, e.g., Comments of ALLTEL Mobile Communications, Inc. ("the Commission is constrained through the instant rule making to fulfill its legislative mandate without regard to what otherwise might be legitimate debate over the wisdom of auctioning spectrum at this time for flexible service offerings, the demand for which is either undefined or currently well met."), pp. 1-2; Association of Public Safety Communications Officials-International, Inc. ("the currently statutory mandate to auction the 2.3 GHz bands severely limits the Commission's ability to take effective action in this proceeding."), p. 3; Industrial Telecommunications Association ("[t]here is little

have correctly observed, however, this view is simply incorrect. By its plain language, the 1997 Appropriations Act directs the Commission to “assign the use of [the 2.3 GHz frequencies] by competitive bidding pursuant to section 309(j) of the Communications Act of 1934” (emphasis in original). The statute does not authorize the allocation of spectrum by auction, as the Commission has proposed, but expressly segregates the frequency allocation and license assignment processes and states that the reallocation of the use of frequencies on the 2.3 GHz band must be “consistent with international agreements concerning allocations.” As a prerequisite to making the 2.3 GHz band available for auction, the Commission must “(1) seek to promote the most efficient use of the spectrum; and (2) take into account the needs of the public safety radio services.”

As TIA and other Commenters have noted, nothing in the 1997 Appropriations Act curtails or modifies the Commission’s duty, under Section 303 of the Act to allocate spectrum based on a reasoned public interest analysis; or to ensure, under Section 309(j)(3) of the Act, full competition, the rapid deployment of new technologies and services, and “efficient and intensive use of the spectrum”. Nor does the 1997 Appropriations Act abrogate the general provisions of Section 309(j) of the Act governing the permitted use of competitive bidding for licensing. On the contrary, the auction of spectrum in the 2.3 GHz band must occur in a manner consistent with the Act’s

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room for enlightened comment on the issues raised in the Notice. Unlike most FCC allocation proceedings, the Commission has little discretion with regard to the spectrum under consideration in the instant proceeding. The conditions, deadlines and revenue expectations set by Congress usurp the latitude normally available to an administrative agency in such matters.”), p. 3.

requirements.<sup>5</sup>

This statutory mandate cannot be squared with the spectrum allocation plan the Commission has proposed for the 2.3 GHz band, which shifts the function of frequency allocation and other administrative duties from the Commission to private parties, who will be free to offer virtually any wireless service, regardless of need or feasibility, or allow their channels to lie fallow, and who will be able to change their service offerings, or terminate them, at any time without prior agency approval or coordination with adjacent licensees.<sup>6</sup> In place of the reasoned public interest finding which Section 303 of the Act requires as a predicate for frequency allocation, and the factual determinations on subscriber use, spectrum efficiency and the deployment of new technologies which Section 309(j) of the Act requires as a predicate to auctions, the Commission has offered a hodge-podge of conjecture and wishful thinking. Neither the 1997 Appropriations Act nor the record in this proceeding supports such an outcome, or the wrong-headed plan the Commission has

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<sup>5</sup> See, e.g., Comments of Airtouch Communications, passim, Alcatel Network System, pp. 5-6; BellSouth Corporation, pp. 4-5; Cellular Telecommunications Industry Association, p. 13; Competition Policy Institute, pp. 2-3; Lucent Technologies, pp. 2-3; Pocket Communications, pp. 2-4; Primeco Personal Communications, pp. 6-8. Even Commenters which otherwise support the Commission's flexible allocation/auction plan urge the Commission to tailor its proposal to ensure, inter alia, regulatory parity (e.g., Comments of GTE Service Corporation, p. 2), and special bidding credits to designated entities (e.g., Comments of Cook Inlet Region, Inc.; Rural Telecommunications Group, p. i); and non-nationwide service areas (AT&T Wireless Services, p. 3). Clearly, the Commission may not "pick and choose" which provisions of Title III govern this proceeding; it must apply and enforce all.

<sup>6</sup> At paragraph 61 of the NPRM, the Commission has invited comment on whether to impose construction requirements. If licensees are permitted to allow their spectrum to lie fallow, and if they are free to change services at any time, as the Commission has also proposed, they would presumably be free also to terminate service at will, without prior agency approval or administrative sanction.



proposed.

To fulfill its statutory mandate, the Commission must, instead, allocate specified services for use on the 2.3 GHz band based on a reasoned public interest determination.<sup>7</sup> As Commenters have observed, the only way to ensure "the efficient and intensive" use of the spectrum, as Section 309(j) of the Act requires and consistent with over sixty years of agency precedent,

... is to follow an effective spectrum management plan that accounts for the different spectrum needs and service components associated with different services. Real-time voice communications, for example, entail several important service components: high reliability and quality; coverage and capacity; privacy and control; and public safety. The Commission generally has found that such communications require an exclusive spectrum assignment. When spectrum was reallocated for Broadband PCS use, the FCC determined that fixed point-to-point microwave operations were incompatible with the mobile applications likely to be associated with PCS systems. The Commission then created a mechanism for clearing the incumbent microwave licensees from the 2 GHz spectrum. Here, the Commission should divide the WCS spectrum into bands and assign an exclusive use to each band.<sup>8</sup>

## **II. The Commission's Proposal is Contrary to the Public Interest**

The Commenters in this proceeding come from all segments of the

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<sup>7</sup> As TIA and other Commenters have observed, auctions are not a substitute for the public interest analysis which Title III of the Act requires in connection with spectrum allocation. See Comments of TIA; Airtouch Communications, pp. 3, 5; Alcatel Network Services, p. 2; Association of American Railroads, p. 7; Association of Public Safety Officials-International, pp. 2, 5; BellSouth Corporation, pp. 4, 5; Cellular Telecommunications Industry Association, pp. 2, 4, 7; Florida Cellular RSA, p. 2; Harris Corporation, p. 3; Industrial Telecommunications Association, pp. 4, 6; Lucent Technologies, pp. 2-5; Motorola, pp. 2-8; Personal Communications Industry Association, pp. 4, 5; Pocket Communications, p. 6; and UTC, p. 3.

<sup>8</sup> Comments of Airtouch Communications, p. 5. See also Comments of Motorola, passim.

telecommunications industry, including, but not limited to CMRS licensees, fixed microwave operators, satellite DARS applicants, equipment manufacturers, and public policy institutes. While many differ on the question of how the 2.3 GHz band can be most efficiently employed, nearly all agree that the Commission's proposal to delegate the spectrum allocation function to winning auction bidders raises substantial public interest concerns. As conceived, the Commission's plan not only contravenes the language of the Act, but is bad public policy.

The record in this proceeding supports the following findings:

- Interference. WCS will be plagued with interference problems caused by the operation of mutually incompatible services. As Commenters have correctly observed, it is difficult to imagine how the Commission can assure that a terrestrial mobile system can be operated in a market adjacent to a fixed terrestrial system,<sup>9</sup> or how a terrestrial mobile system may be operated in a market adjacent to a satellite system.<sup>10</sup>
- Inefficient Spectrum Utilization. The Commission's plan will make efficient spectrum utilization plans impossible. Under the Commission's plan, licensees will not be able to develop efficient utilization plans since they will never be sure what types of service the adjacent licensee is providing. Since such services would not be

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<sup>9</sup> See, e.g., Comments of ADC Telecommunications, p. 14, Alcatel Network Systems, p. 3.

<sup>10</sup> See, e.g., Comments of Airtouch Communications, p. 4, American Mobile Radio Corporation; Digital Satellite Broadcasting Corporation, pp. 3-6; SBC Communications, p. 3.

known prior to licensing, and could change at a moment's notice, coordination between adjacent markets will become costly, complex, and in some cases unfeasible. As one commenter has noted, where adjacent licensees operate conflicting services, the Commission will inevitably be called upon to determine (i) how interference issues will be resolved in such instances, and (ii) whether a licensee is entitled to a refund of its auction payments if the Commission subsequently determines it cannot operate its proposed system because of adjacent operations.<sup>11</sup>

- Adverse Impact on New Services and Technologies. Congress has directed the Commission to ensure "the efficient and intensive" use of the spectrum.<sup>12</sup> Under the Commission's plan, however, licensees may be free to leave their frequencies fallow. Even if a construction requirement is adopted, under the Commission's plan manufacturers are unlikely to develop products for use on the 2.3 GHz band until licenses are awarded and a critical mass of licensees announce their planned uses for spectrum, causing delays in the provision of services. Without any clear guidance as to what type of services will ultimately be provided on the 2.3 GHz band, or assurances that the spectrum will be utilized intensively for a given offering, equipment manufacturers will be unable to anticipate the type of equipment required by service providers and even less opportunity to incorporate cost-saving

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<sup>11</sup> Comments of ADC Telecommunications, p. 14. See also Comments of Airtouch Communications, pp. 3-4; Alcatel Network Systems, pp. 2, 3, Digital Satellite Broadcasting Corporation, passim, Motorola, pp. 4, 6-7.

<sup>12</sup> 47 U.S.C. § 309(j)(3)(D).

designs from other lines of equipment.<sup>13</sup>

The Commission's plan will also likely increase the cost of equipment because devices will have to be designed both not to interfere with the numerous other service offerings that could be provided over the same spectrum, and to reject interference from such other potential services.<sup>14</sup> As one Commenter has observed, As one Commenter has observed,

The Commission must provide [sic] manufacturers with some guidance for product development if delays are to be avoided. Failure to allocate the 2.3 GHz band for a specific use will impair the development and rapid deployment of new products and will hinder the ready accessibility of new technologies, as required by Section 309(j). Moreover, failure to provide manufacturers with product use allocation will preclude the efficient and intensive use of the spectrum because licensees will have spectrum but no means of utilizing it. Instead, the 2.3 GHz band likely will remain unused or underutilized as the market struggles to define its appropriate use.<sup>15</sup>

- Lack of Equipment Standardization. The flexible allocation proposed by the Commission does not provide manufacturers with the certainty needed to develop technically compatible, economically viable new equipment and applications.<sup>16</sup> The

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<sup>13</sup> Comments of Airtouch Communications, p. 3; Lucent Technologies, p. 3.

<sup>14</sup> Comments of Airtouch Communications, p. 4-5; ADC Telecommunications, pp. 14-15, Cellular Telecommunications Industry Association, pp. 1-2, 5, Harris Corporation, p. 3; Industrial Telecommunications Association, pp. 7-8; Lucent Technologies, p. 4; Motorola, p. 6; Multipoint Networks, p. 2; Personal Communications Industry Association, pp. 5-6; Vanguard Cellular, pp. 2-3.

<sup>15</sup> Comments of Lucent Technologies, p. 3, footnote omitted.

<sup>16</sup> Comments of Alcatel Network Services, p. 4; Harris Corporation, p. 3; Industrial Telecommunications Association, p. 7; Lucent Technologies, p. 3; Motorola, p. 6.

Commission's plan does not establish the technical compatibility standards needed to encourage development of new equipment and applications and the subsequent adoption of standards may become impossible if numerous services are offered over the same spectrum.<sup>17</sup>

- Interoperability. Interoperability of devices in a national and worldwide marketplace will suffer under the Commission's plan. The kind of ad hoc operations envisioned by the Commission's proposal would not only create major interference problems but would also require custom designed and consequently very costly equipment. This will have a collateral effect on potential bidders which will have difficulty convincing financial markets that equipment for this band will be available within a reasonable time period after the auction is complete. The failure of the marketplace to respond positively to the allocation of the General Wireless Communications Service in the 4 GHz band is a prime example of how the research and development community is likely to respond to an open-ended allocation in the 2.3 GHz band.<sup>18</sup>
- Critical Needs Ignored. The Commission's plan does not propose to meet any

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<sup>17</sup> Comments of ADC Telecommunications, p. 15; Airtouch Communications, pp. 4-5; Alcatel Network Systems, p. 2.

<sup>18</sup> Comments of Alcatel Network Systems, pp. 4-5; Lucent Technologies, pp. 4-5. Another example of adverse consequences that result from an undefined allocation is the history of the "General Purpose Mobile Service" established by the Commission in 1986. As Motorola has noted, at the time of the Commission's action, there was "no public outcry for such an allocation and a number of industry representatives warned against such undefined experiments. Service rules were never developed as there was insufficient interest in the allocation to encourage its pursuit." Comments of Motorola, p. 7.

critical existing needs, such as for wireless data and local loop services or public safety services, but to provide additional spectrum for existing services, some of which may already have sufficient spectrum, by the Commission's own admission. The likelihood that critical services will not be met will be even greater if the Commission imposes no build-out requirements.<sup>19</sup>

- **Market Fragmentation.** Obtaining spectrum bits "a la carte" forecloses network expansion or technological modifications since neighboring frequency blocks either would be used for another service or would be owned by another party. The use of the spectrum allocation method proposed by the Commission could eventually fragment spectrum allocations into smaller, geographically dispersed, and unusable segments. The variety of vastly different services that could end up operating in each band would also complicate international spectrum negotiations and cross border coordination problems by an order of magnitude.<sup>20</sup>

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<sup>19</sup> Comments of ADC Telecommunications, pp. 15-16; American Petroleum Institute, p. 6; American Public Safety Officials-International; Association of American Railroads, p. 4; BellSouth Corporation, pp. 2-6; Industrial Telecommunications Association; Lucent Technologies, pp. 6-8; Multipoint Networks, p. 2; Omnipoint Corporation, pp. 1-7; Personal Communications Industry Association, pp. 2-8; Pocket Communications, pp. 2, 5-6. In support of the Commission's plan, GTE suggests that the Commission may always direct licensees to discontinue services that are deemed not to be in the public interest. GTE does not address how, if at all, winning bidders who faced such a directive would be compensated for the losses they would incur. Even Commenters who otherwise support the Commission's flexible allocation plan offer the opinion that the 2.3 GHz band is ideally suited for important new wireless Internet and local loop services. See, e.g., Comments of Bell Communications Research, p. 1; Digivox Corporation, p. 3; Interactive Services Association; Markle Foundation; PACS Providers Forum. Without a specific frequency allocation, however, licensees will be free to ignore this public need.

<sup>20</sup> See, e.g., Comments of Motorola, pp. 6, 16.

### **III. Conclusion and Counter-proposal**

For all the foregoing reasons, TIA reiterates its opposition to the Commission's flexible allocation proposal in this proceeding. Instead of the haphazard approach it has proposed, the Commission should focus its allocation of the 2.3 GHz band on a particular set of services, preferably those that would foster the development of new technologies and enhanced services. If any auctions must be held, they should only be conducted after such a determination has been made.<sup>21</sup> In this regard, TIA joins with Commenters who urge the Commission to allocate and restrict the use of the 2.3 GHz band for wireless high-speed broadband data services, including but not limited to Internet access,<sup>22</sup> along with a set-aside -- exempt from competitive bidding -- for fixed or temporary fixed public safety applications.<sup>23</sup> Such an approach, TIA respectfully submits, will promote innovation and help ensure the most efficient use of the spectrum, as both the 1997 Appropriations Act and Title III of the Act require, avoid the statutory shortcomings which the Commission's

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<sup>21</sup> Comments of Cellular Telecommunications Industry Association, p. 2.

<sup>22</sup> See, e.g., Comments of Bell Communications Research, pp. 1, 2; BellSouth Corporation, pp. 2-6; Interactive Services; Lucent Technologies, pp. 5, 8; Markle Foundation; Multipoint Networks;; Omnipoint Corporation, p. 5; Personal Communications Industry Association, pp. 7, 8.

<sup>23</sup> See, e.g., Comments of Association of American Railroads, p. 7; Association of Public Safety Officials-International, p. 4; Pocket Communications, p. 5; Primeco Personal Communications, p. 13; Sprint Spectrum, p. 10.

current proposal presents, and ensure the "balance of flexibility and certainty"<sup>24</sup> which is required to establish successfully new bands and services.

Respectfully submitted,

THE FIXED POINT-TO-POINT COMMUNICATIONS SECTION, NETWORK  
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December 16, 1996  
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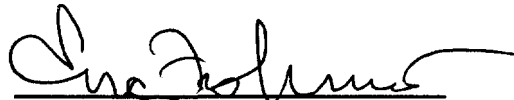
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